

WHAT IS CLAIMED IS:

1 1. A wireless communication protocol for use by a wireless device
2 and a print device for a wireless device to initiate a print by reference operation
3 with the print device, the protocol comprising content for the body of a packet and
4 including:

5 a tag identifying a packet body as being a packet body for a print by
6 reference operation for the wireless device to initiate a print of print content; and
7 a location attribute identifying the location of the print content.

1 2. The protocol according to claim 1, wherein said location attribute
2 requires a uniform resource locator identifying the location of the print content.

1 3. The protocol according to claim 1, wherein the content for the
2 body of the packet further comprises a description attribute providing a name for
3 the location identified by the location attribute.

1 4. The protocol according to claim 1, wherein the content for the
2 body of the packet further comprises a print service attribute identifying a location
3 of a print service to be used in accessing the print content.

1 5. The protocol according to claim 4, wherein the print service
2 attribute requires a uniform resource locator identifying the location of the print
3 service to be used in accessing the print content.

1 6. The protocol according to claim 1, wherein the content for the
2 body of the packet further comprises a device address attribute identifying an
3 Internet address of the wireless device.

1 7. The protocol according to claim 1, wherein the content for the
2 body of the packet further comprises an encoding type attribute indicating how the
3 print content at the location identified by the location attribute is encoded.

1 8. The protocol according to claim 1, wherein the content for the
2 body of the packet further comprises a cookie attribute identifying a cookie usable
3 to process the print content at the location identified by the location attribute.

1 9. The protocol according to claim 8, wherein the cookie attribute
2 uses a cookie name formatted according to HTTP Cookie MIME header name
3 conventions.

1 10. The protocol according to claim 1, wherein the content for the
2 body of the packet further comprises a security attribute identifying security
3 information that can be used in response to a security challenge.

1 11. The protocol according to claim 10, wherein the security
2 information comprises information that can be used in response to an HTTP 401
3 security challenge.

1 12. The protocol according to claim 10, wherein the security
2 information comprises information that can be used in response to an HTTP 407
3 proxy challenge.

1 13. The protocol according to claim 1, wherein the body of the
2 packet further comprises:

3 a HTTP 401 security attribute including information that can be used
4 in response to an HTTP 401 security challenge; and

5 a HTTP 407 security attribute including information that can be used
6 in response to an HTTP 407 proxy challenge.

1 14. The protocol according to claim 13, wherein the format of both
2 of the HTTP 401 and HTTP 407 security attributes are formatted according the
3 HTTP Authorization header of RFC2617.

1 15. The protocol according to claim 1, wherein the body of the
2 packet further comprises a time attribute indicating the time at which a packet is
3 sent by the wireless device to initiate a print of print content.

1 16. The protocol according to claim 15, wherein the time attribute
2 gives the wireless device's Universal Time Code date and time of last
3 modification in ISO 8601 format.

1 17. The protocol according to claim 1, wherein the body of the
2 packet further comprises a key attribute associating security information with the
3 tag.

1 18. The protocol according to claim 17, wherein the key attribute
2 comprises an encrypted and time-sensitive key.

1 19. The protocol according to claim 1, wherein the body of the
2 packet further comprises a status code attribute indicating an alternative location
3 to obtain print content.

1 20. The protocol according to claim 1, wherein the body of the
2 packet further comprises a billing attribute identifying one of the wireless device
3 and a user of the wireless device for billing purposes.

1 21. A wireless communication protocol for use by a wireless device
2 and a print device for a wireless device to initiate a print by reference operation
3 with the print device, the protocol comprising elements for:

4 establishing the nature of the communication as relating to a print by
5 reference operation; and

6 providing a reference identifying a location of content to be printed.

1 22. The wireless communication protocol according to claim 21,
2 wherein the reference comprises a Universal Resource Locator.

1 23. The wireless communication protocol according to claim 22,
2 further comprising elements for:

3 identifying a remote print service usable to process the content to be
4 printed;

5 identifying a cookie usable to process the print to be printed; and

6 providing security information usable in response to a security
7 challenge.

1 24. The wireless communication protocol according to claim 23,
2 further comprising elements for identifying one of the wireless device and a user
3 of the wireless device for billing purposes.

1 25. The wireless communication protocol according to claim 23,
2 further comprising a key element including an encrypted and time-sensitive key.

1 26. The wireless communication protocol according to claim 21
2 further comprising a new sheet element for indicating whether the content to be
3 printed should be printed beginning on a new sheet of media.

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